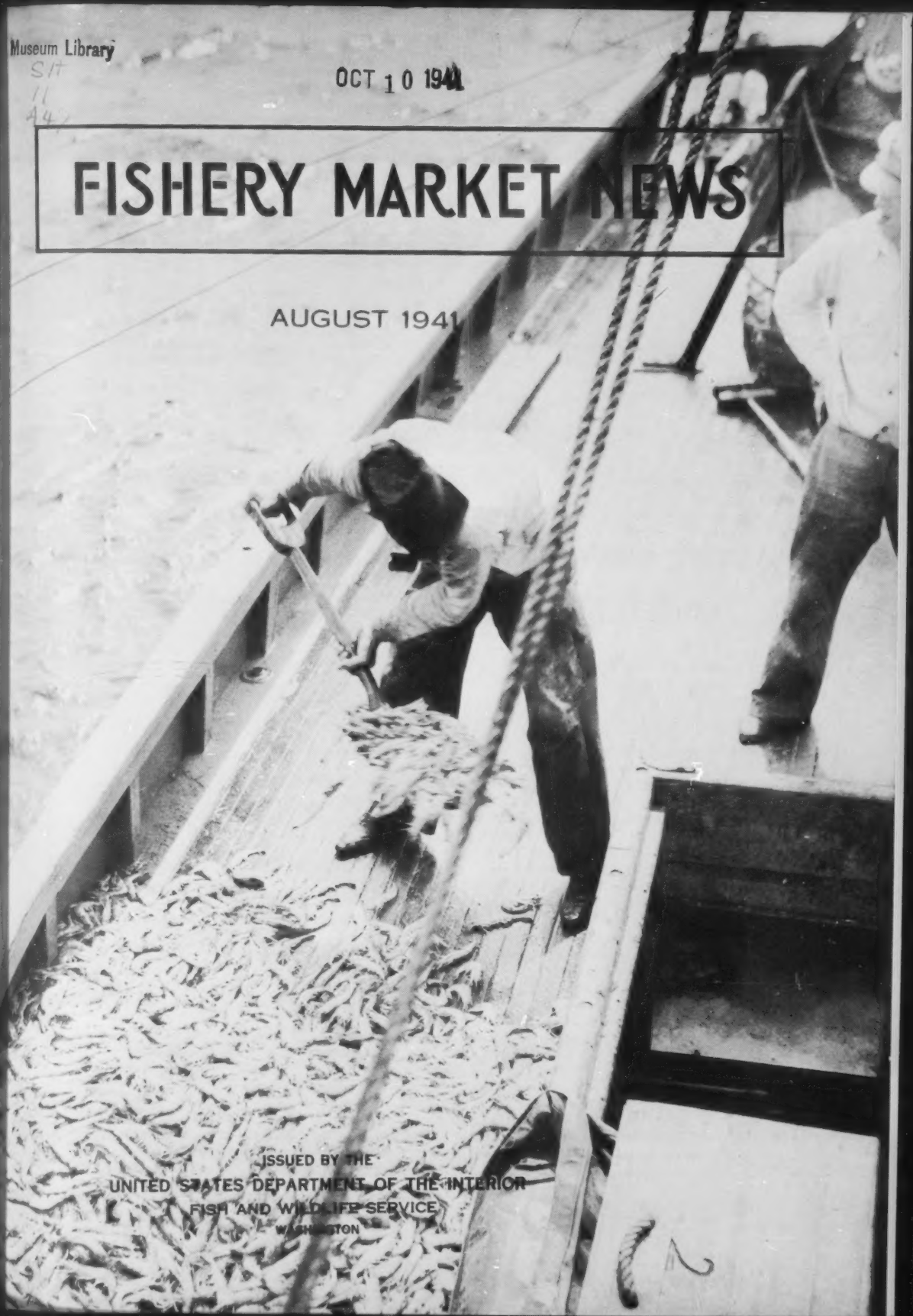
FISHERY MARKET NEWS

AUGUST 1941



ISSUED BY THE
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WASHINGTON

UNITED STATES
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Applications for FISHERY MARKET NEWS, which is delivered free to members of the fishery industry and allied interests, should be addressed to the Director, Fish and Wildlife Service, United States Department of the Interior, Washington, D. C.

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FISHERY MARKET NEWS

A REVIEW OF CONDITIONS AND TRENDS OF THE COMMERCIAL FISHERIES

August 1941 | Washington, D. C. | Vol. 3, No. 8

SUMMARY

New England Fishery Industry Featured in Radio Broadcasts.—Since May the Fishery Market News Service office in Boston has been broadcasting weekly programs covering all phases of New England's fishing industry. The script of the ninth program, a discussion of otter trawling, is reproduced.

Fresh Fish

The experimental use of the "sifter" method for releasing unmarketable and illegal-sized fish from pound-net catches gave satisfactory results in trials in eastern Long Island.

Supplies of oysters for the forthcoming season are reported to be adequate.

Landings at Boston and Gloucester, Mass., and Portland, Maine, amounted to 48½ million pounds, valued at $1,308,000, during June. Over 10 million pounds of rosefish were received in Gloucester.

Striped bass studies will be extended into New Hampshire and Maine.

Iowa's catch of commercial fish in the Mississippi River was over 2 million pounds in 1940.

The International Fisheries Commission ordered the Pacific halibut season closed September 14, the earliest in the history of the fishery.

Supplies of fish in South African waters are abundant but the industry has not been extensively developed.

Frozen Fish

The stocks of frozen fish in domestic cold-storage warehouses increased 34 percent from June 15 to July 15. Whiting were frozen in greatest volume.

New York and Boston cold-storage holdings showed moderate increases during July while Chicago stocks were unchanged.

Canadian holdings of fresh fish on August 1 totaled almost 30 million pounds, major increases occurring in stocks of sea herring, whitefish, and salmon.

Canned Fish

Duty on imported canned crab meat increased 50 percent over previous rate.

Domestic pack of canned fishery products during 1940 valued at $94,114,000, a 3 percent decrease from 1939. Byproducts dropped 10 percent in value to $30,473,000.

Alaska salmon pack numbered 4½ million cases on August 9. The red salmon pack was disappointing but the pink pack was reported well above recent years. The Government is expected to take about 1,200,000 cases of the Alaska salmon pack. Quotations are considerably higher than in 1940.

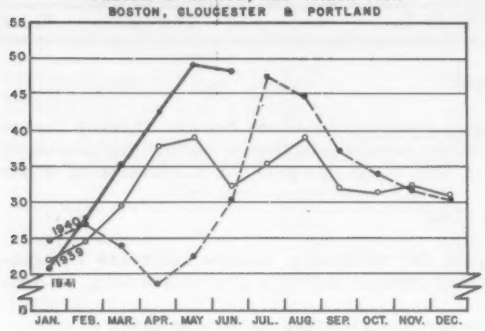
Foreign Fishery Trade

Exports of canned sardines during June and imports of sea herring continued to show large gains over the same month in 1940.

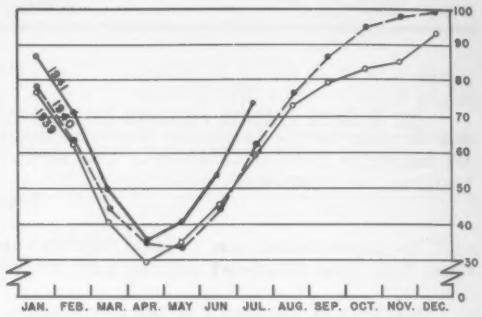
TRENDS OF FISHERY TRADE

In millions of pounds

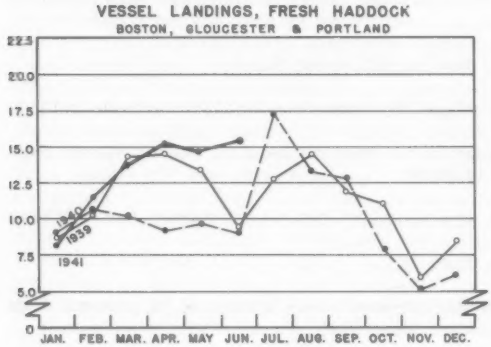
VESSEL LANDINGS, ALL FRESH FISH
BOSTON, GLOUCESTER & PORTLAND



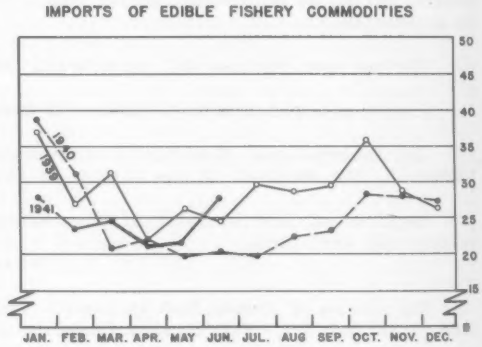
DOMESTIC COLD-STORAGE HOLDINGS OF FROZEN FISH



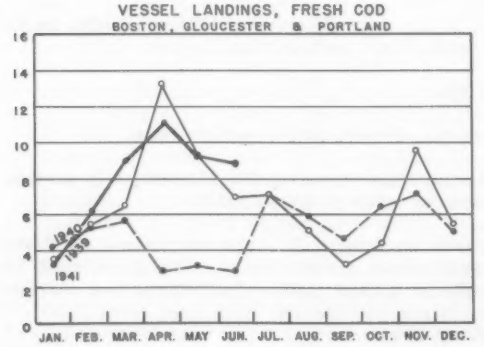
VESSEL LANDINGS, FRESH HADDOCK
BOSTON, GLOUCESTER & PORTLAND



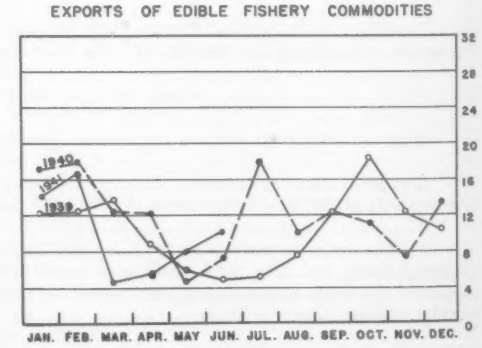
IMPORTS OF EDIBLE FISHERY COMMODITIES



VESSEL LANDINGS, FRESH COD
BOSTON, GLOUCESTER & PORTLAND



EXPORTS OF EDIBLE FISHERY COMMODITIES



NEW ENGLAND FISHERY INDUSTRY FEATURED IN RADIO BROADCASTS

Since early this summer the fishing industry centered in and around Boston has been on parade. Through the medium of a series of weekly radio broadcasts entitled "Harvest of the Sea", the industry is telling its story from the romance and hardship of casting the gear at sea to the retail merchandising of its products. Starting May 15, the programs were broadcast each Thursday evening over WHDH, Boston, and will continue through October 9. WHDH is frequently referred to as the "Fisherman's Station". It has excellent coverage in New England and on the fishing banks sought out by the great New England fleet of trawlers.

The 15-minute scripts have been prepared by B. E. Lindgren, Associate Fishery Marketing Specialist in charge of the Service's Fishery Market News Service office in Boston. Prepared in question-and-answer style, the interviews are conducted with representatives of all branches of the industry. With the exception of several programs capably handled by his assistant, J. J. O'Brien, Mr. Lindgren also conducts the programs on the air.

Representatives of the industry and the general topics discussed in the earlier programs follow:

John Fulham	President, Boston Fish Pier Corporation	Boston Fish Pier
E. L. Dunn	President-Manager, New England Fish Exchange	Fish Exchange activities
E. H. Cooley	Manager, Massachusetts Fisheries Association	Association activities
Arthur C. Tucker	Manager, Gloucester mill of Linen Thread Co.	Fishing gear
Lieut. Leon H. Morine	Coast Guard	Coast Guard work
Capt. Val. O'Neil	Fishing vessel captain	Fishing years ago
Pearl S. King	Lobster fisherman	Lobstering
Capt. Patrick McHugh	Atlantic Fishermen's Union	Union activities
Capt. T. F. Landry	Trawler Dartmouth	Otter trawling
Capt. Lemuel B. Firth	Fishing vessel captain	Mackerel seining
Capt. Carl Peterson	Fishing vessel captain	Swordfishing
Ralph H. Osborn	Director of State Division of Marine Fisheries	State fishery activities
Wm. C. Herrington and George A. Rounsefell	U. S. Fish and Wildlife Service biologists at Cambridge, Mass.	Federal biological studies
B. E. Lindgren and J. J. O'Brien	U. S. Fish and Wildlife Service Fishery Market News Service at Boston	Fishery Market News Service

Later broadcasts will cover Packaging and Packing; Freezing and Cold-storage; Salting and Smoking; Canning; By-products and Oils; Transportation and Shipping; and Retail Merchandising.

As an example of the type of script and the informative material presented on the fishery industry, the interview with Captain Landry of the trawler Dartmouth on Otter Trawling is reproduced.

Radio Broadcast No. 9 — "Harvest of the Sea"

Captain T. F. Landry, Interviewed by
B. E. Lindgren, Associate Marketing Specialist

LINDGREN: Good evening folks! The introduction of the Otter trawl sometimes called Beam trawl or Drag in the New England fisheries has proved to be a very effective way of catching fish. This type of fishing now accounts for the biggest percentage of fish being landed at the principal ports of New England. Since its use, the landings of groundfish have shown a considerable increase in the production of fish during all seasons of the year. This evening, I am glad to announce that we have the Captain of the trawler DARTMOUTH with us, who will describe in some

detail the operations of this type of gear. I now take pleasure in introducing to you, Captain T. F. Landry. Captain Landry, will you please explain to us the different types of dragging now in common use in this section.

LANDRY: I should say there are three types--the small boat, the medium-sized trawler such as the DARTMOUTH, and the large trawler such as the CORMORANT and the NORTH STAR. The smaller dragger fishes in the shoal waters, and the medium-sized draggers such as ours fish in practically all waters; while the large trawler usually fishes in deep water farther offshore.

LINDGREN: Are the operations of these three different types fundamentally the same?

LANDRY: They are practically the same in the three types. The larger the boat, the heavier the net.

LINDGREN: Do the smaller draggers catch different fish from the larger type draggers as a rule?

LANDRY: They all catch the same kinds, but the smaller draggers usually specialize in flat fish such as yellowtails and other flounder varieties. The smaller draggers usually are out from two to three days, and the other two types are out anywhere from a week or longer depending on the weather and the abundance of fish. The medium dragger carries a crew of from nine to ten men, and the dragger carries from five to six, while the largest type carries from sixteen to twenty.

LINDGREN: On what fishing grounds do the different sized dragging vessels usually fish?

LANDRY: The medium draggers fish off Nantucket Shoals to a certain extent, but on Georges Banks and in the Channel mostly. The larger type draggers, of course, fish on the distant banks such as Western and the banks off the Canadian coast; also off the Nova Scotia and Newfoundland coasts, a distance of approximately three to five hundred miles from Boston. We fish anywhere from 125 to 200 miles from Boston. Of course, the inshore boats fish in a number of cases, anywhere from within sight of land to sixty miles offshore.

LINDGREN: After leaving port, Captain, do you usually have a charted course in mind and know where you plan to try your first set?

LANDRY: As a rule it depends on how conditions were where we left off on the previous trip. If there seemed to be a good sign of fish in that locality, we usually go back there, and depending also on the reports from other vessels that we are in communication with from time to time. At different seasons of the year you will find fish in particular locations that are only there during those particular times. For instance, in January in a great many places you would not think of looking for fish where you would look for them in May. That is not so in all cases, of course.

LINDGREN: The season, time of the year, and weather are factors that have a lot to do with fishing. Isn't that so, Captain?

LANDRY: The season is really the chief factor because there is a time when a school of fish will strike a certain part of the bank. Occasionally, there will be a run of haddock or cod, and then you will fish that part of the bank where the fish are likely to be.

LINDGREN: Do you make any special effort to catch a particular kind of fish?

LANDRY: Why, yes. Because, naturally, we try to get the species that are worth more to us, and, also, we try to catch the kinds that are most plentiful and prove most profitable.

LINDGREN: It's always been a mystery to me, Captain, like all land-lubbers, how you are able to get your bearings and location. In other words, you seem to know where you are almost to exactness.

LANDRY: Well; that is determined by the soundings on the chart and the depth of the water, and to a great extent the kind of bottom in each particular place. For instance, in some parts of the bank you expect to find sand on the bottom while in other sections you find a muddy bottom. In still other parts of a bank you find a rocky bottom. Through experience, one becomes familiar with the banks by the charted depths of the water and the nature of the bottom.

LINDGREN: How do you take soundings?

LANDRY: We use a sounding lead which is a ten to fifteen pound weight with a cavity which is filled with butter, or sometimes we use soap but it is not as good. When the lead is dropped to the bottom, the water being cold causes the butter to harden so that pebbles, particles of sand or whatever it touches will stick to it. Sometimes you get nothing but the impression of a rock, then you know it is hard bottom. Sometimes when you drop the lead on a real muddy bottom, you have quite a difficult time pulling it out of the mud. Of course, now that we have a fathometer, there is not so much sounding done as formerly. By simply turning on a switch, the fathometer indicator tells the depth of the water. That, of course, eliminates a lot of sounding because by following the edge of the bank with the fathometer, you can take soundings every five or ten minutes. There are not many places on a bank where you get the same sounding.

LINDGREN: Do you also use an instrument known as "direction finder"?

LANDRY: Yes, we do. The direction finder helps to a considerable extent by indicating the direction that you lie from a particular spot. In coming to port, for example, you can't miss the lightship or beacon that you take the bearing on.

LINDGREN: After arriving at the designated spot on the fishing grounds where you are fairly confident of making a set and successful drag, what happens?

LANDRY: Well, we stop the boat. As soon as she remains motionless, we throw the net over the side and then drop the two doors or otterboards which are attached to each side of the net. Then we start the boat ahead until we have the net deep enough so that it will drag over the bottom as the boat goes at the rate of probably from four to six miles an hour. Of course, you have to have enough wire out so that the net stays on the bottom. On the bottom of the net, where we tow over a great deal of rough bottom, we use what are called rollers. They are wooden discs from 14 to 16 inches in diameter and about 8 inches thick. The foot line of the net passes through the center of the rollers. These rollers help protect the net from rough bottom.

LINDGREN: Tell us the purpose of the wooden doors or otter boards and how they operate?

LANDRY: These doors, of which there is one on each side of the net, are approximately five feet wide and nine feet long, and are heavily weighted on one edge. They are fitted with brackets so that they will draw like a square kite when pulled through the water, the water offering the same resistance to the door as air would to a kite. The doors will spread apart as they are being pulled through the water and they tend to keep the net open. The mouth of the net is also kept open by a number of metal floats strung along the head line or top line of the net.

LINDGREN: For the most effective fishing, then, the fish have to be fairly close to the bottom and not hovering in schools above the net?

LANDRY: If the fish are not very close to the bottom, we don't catch them at all. In fact, lemon sole and the flounder type of fish are flat on the bottom, and in order to catch them you pick up sand, pebbles and stones, or anything at all that happens to lie on the bottom.

LINDGREN: It also seems logical that you would be apt to pick up snags and hang up.

LANDRY: Oh yes. If you happen to tow into a rock or boulder too heavy to lift, you sometimes leave net and all. Sometimes you will pull up pieces of wrecks, and then again, you may pick up a big ship's anchor that has been lost.

LINDGREN:: It must keep the crew busy when fishing on rocky bottom?

LANDRY: It certainly does. In a number of places, regardless of how plentiful the fish are, you can't possibly stand the tear-ups and damage.

LINDGREN: I think some people are under the impression that fish are everywhere in the ocean. How about it, Captain?

LANDRY: It is surprising how many miles of the ocean's bottom you can pull a net over and not get a half dozen fish. For instance, you might be in a particular place and getting all the fish you can possibly take care of in the morning, and in the afternoon you would not get one, and a great number of times you might pull your net over a place in the afternoon and get nothing and as soon as the sun sets you get plenty of them.

LINDGREN: In other words, fish are found only on specific grounds and at different depths, and at certain times of the day or night, and seasons of the year.

LANDRY: Yes, those are absolute facts. In some seasons and in some places, you would be looking for lemon sole after dark and you would find them quite plentiful. When daylight comes they would be gone, and another season of the year you might find plenty in the daytime and as soon as darkness comes they would be gone. No one can explain it. Look at redfish, for instance. Before sunrise or after sunset, we catch very few. Of course, redfish are rarely caught at night, but codfish, haddock and flounders can be caught at night as well as during the day. This varies with the seasons to some extent.

LINDGREN: How far do you usually tow the net before bringing it to the surface?

LANDRY: We usually tow for an hour before bringing the net to the surface and hoisting it aboard. That would cover from 4 to 6 miles of bottom.

LINDGREN: What happens after the net is hoisted aboard?

LANDRY: After the bag is hoisted over the deck, the knot in the cod-end is untied and everything drops out of the bag on deck. Then the net is thrown overboard again. However, on our type of boat, we have to tow with the tide since it is not powerful enough to tow against the tide. The net is emptied and we return to the original starting point before re-setting.

LINDGREN: Would the fishing against the tide be more productive than it would be with the tide?

LANDRY: Well, I would say that towing with the tide would be more effective because we can cover more ground in the same length of time because we make more speed, but even boats powerful enough to tow against the tide as a rule have to spend nearly an hour and a half to tow a net against the tide to cover the same ground that they would cover in one hour with it. Actually, you do get more fish with the tide than you would get towing against it. Whether or not it is due to the fact that you can cover more ground or not, I believe that it is due to the fact that as you tow with the tide the fish are heading against the tide. They are going into the net head-on instead of tail-on, provided that the fish always head into the tide.

LINDGREN: After the fish are aboard, Captain, who takes care of them ?

LANDRY: Of course, the fish have to be dressed and sorted. They are then thrown into a box of clean salt-water that is kept running in and out. A box of this type holds one thousand pounds of fish. After going through this box, they are thoroughly washed, brought in the hold and iced in the pens.

LINDGREN: Do you keep each variety of fish in separate pens?

LANDRY: Oh yes. For example, you take out your haddock, and then the cod, lemmon sole, and so on, and place them in separate pens.

LINDGREN: Do you follow the market closely when you are nearing the completion of the trip?

LANDRY: Why yes, because, for instance, if you have a pretty fair catch and you have reason to believe there are a number of boats that are just a day or so behind you also with good catches, you will try to get into port before them, anticipating a better market. That is not always possible, but at times if you know there are going to be several boats in on one day, you will try to get in the day before, or day afterwards, depending on the amount of fish you have at that particular time. But as a rule, if prices are fairly good on Monday, you can expect them to be fairly good on Tuesday.

LINDGREN: Do you listen to the reports on market conditions which we furnish Station WHDH for broadcasting on the fishermen's program "THE VOICE FROM HOME"?

LANDRY: Surely. Besides cooking, that is one of the requirements of the cook. When the fish news comes on, the cook writes down the hails and names of the boats, and the prices for that day. Anytime, afterwards all we have to do is to look at his report and find out what the news was. However, if the men are not busy at that time, they all crowd around the radio when the fish news comes on. We are also particularly grateful for the weather report included in the same broadcast which is provided by the United States Weather Bureau.

LINDGREN: You must also find the ship to shore telephone a pretty useful instrument aboard the vessel.

LANDRY: Yes, it's quite a wonderful thing because you are always able to summon assistance if you need it, and you can get medical advice from shore in case a man is badly injured. We also communicate with other vessels to find out how conditions are in various parts of the bank. This really saves us a lot of trouble and time and unnecessary cruising.

LINDGREN: What is the average quantity that you get in a drag?

LANDRY: We get anywhere from 500 to 10,000 pounds in a drag.

LINDGREN: Taking certain things into consideration such as wind and tide, how do you manage to stay on one part of the ground?

LANDRY: We usually drop a mark buoy with flags and lights on it so we can keep in that same vicinity otherwise the tide would take us off the course. It is almost impossible to stay in that one particular spot without the use of buoys, and in foggy weather we depend entirely upon the fathometer and sounding lead.

LINDGREN: I think that covers the otter trawl fishing from start to finish in an excellent manner, and I'm sure many of us now have a better understanding how fish are caught with this type of gear. I am deeply grateful to you, Captain Landry, and want to thank you for your participation in this interesting broadcast.

LANDRY: Thank you, Mr. Lindgren. I am only too glad to do my bit in giving the public a better conception of the fishing industry.

LINDGREN: So until next week at this same time, folks, I wish you all the best of luck and smooth sailing.

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GOVERNMENT WANTS MORE ECONOMISTS

The Civil Service Commission has just announced an examination for economists in specialized fields at salaries from $2,600 to $5,600 a year. No written examination will be given.

Economic analysts, commodity economists, industrial economists—in fact, all types of economists—are needed provided they have the requisite training and a thorough understanding of the application of economics to at least one special field of production or distribution.

Those qualified in fishery economics should request Application Form No. 118 from the Secretary, Board of United States Civil Service Examiners, at any first- or second-class post office, except in district headquarters' cities where the forms must be obtained from the United States Civil Service district office. Applications will be rated as soon as practicable after receipt at the United States Civil Service Commission, Washington, D. C., and certification will be made as the needs of the service require except that when sufficient eligibles are obtained the receipt of applications will be closed, in which case due notice will be given.

FISH "SIFTER" TESTS CONTINUE

Additional trials with satisfactory results have been made with the so-called "sifter method" for releasing unmarketable and illegal-sized fish from pound-net catches, according to Service biologists.

The sifter method consists of using a rectangular piece of netting of appropriate sized mesh. The "apron", so formed, is attached to the pocket of the pound net. The net is lifted and all of the catch run over the cork line onto the apron. The small fish escape by swimming through the mesh and are thus returned directly to the sea.

During July, at the suggestion of two operators of a large number of pound nets in eastern Long Island, additional trials were made with the sifter for sorting out large catches of butterfish which included many unmarketable sizes. A report of such a test follows:

"We used the 3½-inch stretched mesh, 21-thread sifter for sorting butterfish and with excellent results. Some gilling of market-sized fish occurred but this was not very serious and many of these gilled fish were saved by shaking the sifter so that the fish fell back into the pound boat. We ran the entire catch into the sifter and most of the small fish seemed to go out through the bottom meshes. We sampled the catch before and after sorting. A random sample of the catch taken before sifting consisted of 151 discards (below marketable size) and 115 market sizes. After sifting we took another random sample which consisted of 1 discard (below market size), 1 marginal size, and 160 market sizes. The sifter culled out practically all of the fish below the minimum market size of 6½ inches (measured from the snout to the fork of the tail). Captain Frank Eldredge stated that he could not have gotten the entire catch into his boat without sifting and that it saved him 3 hours' work since ordinarily he would have had to pick over his catch by hand."

The "sifter" is also being used now by operators of large pound nets located off Fire Island Inlet and Jones Inlet, Long Island, for sorting thimble-eyed mackerel and unmarketable sizes of butterfish from the rest of the marketable fish in the catches. One important feature in the use of this sifter, in addition to releasing small fish, is the amount of time which fishermen save in sorting and handling their catches.

OYSTER SUPPLIES ADEQUATE IN MOST SIZES

Reports received by the Oyster Institute of North America in mid-August from production centers along the Atlantic Coast indicate that there will be an adequate supply of oysters except in the grade of counts or large oysters, of which the stocks are still below normal.

The quality is good, ideal for this season of the year, as the oysters are beginning to fatten after spawning.

The chief difficulty anticipated by the oyster growers and packers is a probable labor shortage, particularly in the larger centers where defense projects have absorbed labor at wages much higher than are paid in the seafood industry. Some fears are also expressed with respect to obtaining sufficient stocks of such needed materials as oil, burlap bags and covers, engine parts, and tools. Due to present conditions, the cost of production will be materially increased. Prices for oysters will have to be advanced accordingly as compared with last season. A few packers began operations as early as August 18. More will be opening their plants about September 1, but many plants will not begin operation until after mid-September.

USE OF FISH IN SIXTH CORPS ARMY AREA COMPARATIVELY LOW

Late in July, Chas. W. Triggs, Chairman of the Fishery Advisory Committee, made a survey of the use of fish and meat in the Sixth Corps Army area and reported the results to members of the Fishery Advisory Committee in a letter which is reproduced below.

July 24, 1941

TO THE MEMBERS OF THE FISHERY ADVISORY COMMITTEE:

FOOD FOR THOUGHT
(Nothing Better than Fish)

DO YOU KNOW that the American Institute of Meat Packers and the National Livestock Board spent $2,000,000 this past year publicizing meat?

DO YOU KNOW that the per capita consumption of meat increased from 132.9 pounds in 1939 to 141.6 pounds in 1940, an increase of 8.7 pounds per capita? The total consumption of fish is about 14 pounds per capita.

DO YOU KNOW that in spite of the increased cost of meat, the meat industry is going to continue publicizing meat this coming year? This is not surprising when you consider the very successful campaign this past year.

In checking over the menus for the Sixth Corps Army area - Michigan, Illinois and Indiana - for the month of July, we find the following interesting figures:

For Company of 100 Men

Total meat and poultry	2,081 lbs.
Pressed Ham and Corned Beef Hash	123 lbs.
	2,204 lbs.

Total money value - $372.40

Fish - Haddock Fillets	110 lbs.
Canned Salmon	30 lbs.
	140 lbs.

Total money value - 21.30

Haddock fillets, no waste, delivered to camp - $13.00 per 100 lbs.

Meat, including bones, average cost . . . . . 16.89 per 100 lbs.

According to press releases, the National Live Stock Board has specialists visiting camps throughout the United States, educating mess sergeants in the proper cutting, preparing and cooking of meats for the camps. What a pity the fish industry is not in position to do likewise, when there is so much more need for education in the use of fish than other commodities!

Yours very truly,
(Sgd.) CHAS. W. TRIGGS
CHAIRMAN
FISHERY ADVISORY COMMITTEE

CWT:RD

CANNED CRAB MEAT DUTY INCREASED

The Tariff Commission announced on August 22 that the President had approved its report on the differences in costs of production of canned and fresh crab meat in the United States and in the principal competing country, and had issued a proclamation increasing the duty from 15 percent ad valorem to 22-1/2 percent ad valorem on canned crab meat, to become effective on September 21, 1941.

The investigation was instituted by the Tariff Commission on October 3, 1940, under the provisions of Section 336 of the Tariff Act of 1930, pursuant to Senate Resolution No. 200 of the 76th Congress.

For the five years ended 1939 the United States consumption of all crab meat averaged 19.2 million pounds annually, of which 43 percent was fresh crab meat produced entirely in the United States and 57 percent was canned crab meat. Of the consumption of canned meat, 95 percent was imported and 5 percent domestic.

United States imports of canned crab meat are almost entirely from Japan and the Soviet Union. During the ten years ended 1940 annual imports for consumption ranged from 7.4 million pounds in 1934 to 13.5 million pounds in 1939 and averaged 10.1 million pounds. During this period Japan supplied 78 percent and the Soviet Union 21 percent of the total quantity imported. In 1940, however, imports from Japan represented 90 percent of the total.

Until about 1934 the United States market for canned crab meat was supplied almost entirely by imports. In the last few years, however, several canneries have been established in the United States and their output now supplies a considerable part of domestic consumption. This expansion of the industry was made possible chiefly by improved canning methods which prevent discoloration of the meat after it is packed in the can. The two principal species of crabs used by the domestic canning industry are the blue crab of the Atlantic and Gulf coasts and the dungeness crab of the Pacific Coast. Domestic canneries are located in Maine, Virginia, South Carolina, Louisiana, Oregon, Washington, and Alaska.

The investigation did not disclose facts warranting a change in the duty on fresh crab meat. Fresh crab meat is produced in 15 of the coastal States and in Alaska. The Chesapeake Bay States of Maryland and Virginia continue to account for more than half of the total domestic production despite present steady increases in most other States.

The fact that fresh crab meat is highly perishable is a distinct limitation to national distribution. Although the difficulties of transportation have been largely overcome, the number of retail establishments adequately equipped to handle fresh seafoods is still small, particularly in inland centers. For these reasons consumption is confined largely to the coastal States, with restaurants, hotels, clubs, etc., taking more than half of production. The remainder is distributed largely through retail establishments engaged exclusively in the marketing of fresh and frozen seafoods. Canned crab meat, on the other hand, enjoys national distribution and is handled by a majority of retail grocery stores for consumption in individual homes.

WHOLESALE AND RETAIL PRICES

The Bureau of Labor Statistics' index of nearly 900 wholesale price series rose 0.5 percent during the week ending August 2 to the highest point since April 1930. The general level of wholesale prices reached 89.2 percent of the 1926 average, 1.7 percent over July 5, and 15.8 percent above a year ago.

Retail food prices, which advanced about 2 percent per month from March through June, rose 0.8 percent from June 15 to July 15. Food costs were 9.5 percent higher than a year ago but have not yet reached the peak level of 1937. Preliminary reports for the last half of July indicate retail prices are continuing to rise. The principal factors involved are increased consumer demand, large Government purchases, and some speculative buying.

In 51 cities the retail price of a 1-pound tall can of pink salmon averaged 17.6 cents on July 15, 2.9 percent above the previous month and 11.4 percent greater than a year ago. Red salmon averaged 28.8 cents per pound can, 2.5 percent higher than June 15 and 11.6 percent above July 16, 1940.

FISHING VESSELS IN THREE NEW ENGLAND PORTS TOTAL 373 IN 1940

Fishing vessels landing fares at Boston and Gloucester, Mass., and Portland, Maine, during 1940 numbered 373 craft of 5 net tons capacity or greater, according to the Service's Statistical Bulletin No. 1431. These vessels made 12,583 trips to the fishing grounds and were absent from port 48,961 days. The catch of edible fish landed at the three ports amounted to 372,499,000 pounds when the salted fish had been converted to the basis of fish caught or round fish as usually landed. This was a decline of 4 percent as compared with the catch made during the previous year. Large otter trawl vessels (those of over 150 gross tons capacity or greater) accounted for 145,509,000 pounds or 39 percent of the total catch landed at the three ports. Medium otter trawl vessels (those of 51 to 150 gross tons) were second in importance, accounting for 107,000,000 pounds or 29 percent of the landings, while small otter trawl vessels (those of 5 net tons to 50 gross tons capacity) accounted for 48,106,000 or 13 percent of the total landings.

The catch taken on the Western Side of South Channel and landed at the three ports amounted to 46,631,000 pounds or 13 percent of the total; that on Eastern Massachusetts grounds, 45,127,000 pounds or 12 percent; and on Northern Edge and Northeast Peak of Georges, 41,893,000 pounds or 11 percent.

Data on the number of trips made and days absence from port shows that large otter trawl vessels were absent from port an average of 9.6 days each trip. Vessels operating harpoons made trips averaging 8.4 days each; those operating medium otter trawls, 6.8 days; those operating line trawls, 3.7 days; and those operating small otter trawls, 3 days.

THREE PORT LANDINGS NEARLY 50 MILLION POUNDS IN JUNE

In June there were 48,461,000 pounds of fishery products, valued at $1,308,000, landed at the three ports of Boston and Gloucester, Mass.; and Portland, Maine, by fishing vessels of 5 net tons and over. These landings are itemized in Fish and Wildlife Service Statistical Bulletin No. 1434.

The landings included 29,948,000 pounds received at Boston, 15,250,000 pounds at Gloucester, and 3,263,000 pounds at Portland. The total for the three ports represents a decrease of 1 percent in volume but an increase of 8 percent in value as compared with the May landings.

Compared with June 1940, during the latter part of which most of the large otter trawlers returned to active fishing upon the conclusion of a labor controversy, the 1941 landings showed a considerable increase. The total volume of landings increased 58 percent and the value gained 77 percent. Rosefish, in particular, showed a substantial gain as compared with landings for June last year. This item increased 45 percent in poundage landed, and 94 percent in value. Over 10,000,000 pounds of rosefish were received in Gloucester alone. Landings of cod, haddock, and whiting increased 195 percent, 72 percent, and 71 percent, respectively, as compared with the landings in June 1940.

STRIPED BASS STUDIES TO BE EXTENDED INTO NEW ENGLAND

Plans are now being made for the extension of the striped bass study to New Hampshire and Maine in cooperation with State officials, according to the Service's Cambridge laboratory.

The principal objective of the striped bass study in New Hampshire will be to determine to what extent the local supply is dependent upon a migratory or a local population, or both. To secure this information, observations will be made of the catch of adult fish and of possible spawning and nursery areas for striped bass in New Hampshire waters to determine to what extent local reproduction, if any, contributes to the available supply.

Tagging of striped bass will be done in the fall, with the assistance of fishermen, to obtain additional information on migration, and particularly to determine whether any striped bass that winter in New Hampshire waters remain available to New Hampshire fishermen the following year.

Tentative plans for a similar study of striped bass in Maine waters have been made with Sumner Towne, in charge of the striped bass survey being made for the Maine Development Commission and Department of Sea and Shore Fisheries.

TUNA TAGGED OFF NEW JERSEY

To ascertain facts about the habits and migrations of tuna, Service biologists made arrangements with sport fishermen of Long Island, and the committee in charge of the U. S. Atlantic Tuna Tournament, to tag tuna less than 75 pounds which were ineligible as contest entries. The tournament was held in northern New Jersey waters from August 11 to 13.

The tuna supports one of the major sport fisheries of Nassau County, Long Island. During the past 10 years the presence of large schools of tuna in the inshore waters along the south shore of Long Island has resulted in the development of a charter boat business catering to an ever increasing number of salt-water anglers. It is estimated that 60 to 100 boats from Nassau ports engage regularly during the summer in this special activity.

The objectives of the tuna study, being conducted in cooperation with Nassau County fishery officials, are to determine the economic and social value of the supply of tuna to the large rod and reel fishery and the less extensive commercial fishery, and to determine the source of that supply and the causes of changes in yield.

FISHERIES OF VIRGINIA

Virginia fishermen in the vicinity of Elizabeth City County report that the shad catch this spring was the best that has been known locally for a number of years, according to the Service's marketing agent in that region. The run of shad appears a little later than it does in some sections of the State and prices were not so good as those quoted in some other areas, but the season as a whole was much better than the previous year.

During July good catches of croakers and sea trout were being made but fishermen and dealers stated that the fish were running small and bringing low prices.

Improvement in the spring shad run appeared general throughout the entire State. The State hatcheries report that the shad spawning season was very successful, with an increase of almost 4 million in the number of eggs handled. The State hatchery work is done on the Pamunkey, Mattaponi, and Chickahominy Rivers.

FISHERIES OF LOUISIANA

The fishery industry in Louisiana is enjoying a rather prosperous year, according to the Service's marketing agent in that area.

The shrimp season, which ended June 30, was the most successful the shrimpers have had in years. Production at Morgan City was reported as about 10 percent lower than the previous year, due largely to bad weather which prevailed generally along the coast. Canned shrimp was produced in smaller volume than in previous years, but prices are considerably higher than a year ago.

Most sections report hard crabs as numerous as in 1940 except at Mandeville where they have been less abundant and somewhat smaller. All species of fish appeared to be more plentiful than at any time since the freezing weather in January 1940. Though small in size, sea trout and redfish (red drum) are reported to be in good supply around Shell Beach and Houma. Tremendous schools of menhaden (porgies) have been reported offshore by shrimpers.

On Sunday, July 13, the Fourth Annual Blessing of the Shrimp Fleet was held at Morgan City. About 75 vessels from the local area participated in the colorful affair which is held annually prior to the opening of the shrimp season.

SALT-WATER AND SHELLFISH VARIETIES PREDOMINATE IN CHICAGO DURING JUNE

The total receipts of fishery products on Chicago's wholesale market in June were slightly above the previous month and June 1940, according to the data collected by the Service's Market News office in Chicago. Receipts of fresh-water varieties were somewhat lower during the month, especially carp, lake trout, and yellow perch. Salt-water and shellfish varieties, particularly halibut and shrimp, arrived in sufficiently greater quantities to overcome the deficiency in fresh-water species. With salt-water fish and shellfish predominating in the market, Massachusetts and British Columbia became the leading suppliers.

Receipts of Fishery Products at Chicago

Item	June 1941	June 1941 compared with		6 months Jan. - June 1941	6 mo. 1941 compared with 6 mo. 1940
		May 1941	June 1940		
Classification:	Pounds	Percent	Percent	Pounds	Percent
Fresh-water fish	2,193,000	-10	- 6	18,594,000	+14
Salt-water fish	1,753,000	+21	+35	9,292,000	+23
Shellfish, etc.	961,000	+ 5	- 8	4,339,000	-14
Total receipts	4,907,000	+ 2	+ 5	32,225,000	+11
Leading items:*					
Carp	136,000	-29	+28	1,088,000	+18
Lake herring	260,000	+42	-24	1,449,000	- 6
Lake trout	451,000	-31	-12	2,905,000	+12
Whitefish	314,000	+30	+ 8	1,974,000	- 9
Yellow perch	223,000	-33	+19	1,698,000	+41
Halibut	662,000	+17	+18	3,791,000	+ 4
Rosefish fillets	434,000	+ 3	+76	1,903,000	+10
Shrimp	779,000	+ 9	- 9	2,769,000	-16
Leading sources:					
Massachusetts	888,000	+12	+76	3,766,000	+37
Michigan	640,000	-19	-25	3,355,000	-10
Ohio	269,000	-37	+ 6	1,037,000	+12
Wisconsin	642,000	+14	+ 4	4,388,000	+ 1
British Columbia	711,000	+29	+15	3,870,000	+ 7
Domestic total	3,782,000	- 3	0	21,484,000	+ 7
Imported total	1,125,000	+23	+23	10,741,000	+20
Transported by:					
Truck	2,112,000	- 1	+54	12,749,000	+34
Express	1,766,000	+ 1	-14	7,652,000	-16
Freight	1,029,000	+11	-18	11,824,000	+15

* Includes fresh and frozen fish.

FISHERIES OF IOWA

Commercial fishing is permitted only in the boundary waters of Iowa, according to E. B. Speaker, Superintendent of Fisheries. Boundary waters include the Mississippi and Missouri Rivers. All commercial fishing carried on in inland waters of the State is under the supervision of the State Conservation Department. It is prosecuted by State employees with State-owned equipment and the proceeds of the sale of the fish taken goes into the general fish and game fund.

During the 1940 season the State Conservation Department removed 833,738 pounds of commercial fish from inland waters. The species taken included buffalo, carp, quillback, and sheepshead.

The total catch of commercial fish on the Mississippi River by commercial fishermen during the 1940 season was 2,124,676 pounds divided as follows:

Buffalo	521,961	Dogfish	77,326	Sand sturgeon	27,764
Bullheads	98,577	Common pike	52,708	Suckers	16,787
Carp	857,399	Sheepshead	288,482	Perch	730
Catfish	181,786	Rock sturgeon	1,056	Quillback	100

The Missouri River yielded 63,970 pounds of commercial fish.

FISHERIES OF MINNESOTA

There has been a marked decline in the number of fishermen actually engaged in the fishing industry in the Minnesota waters of Lake Superior because of increased opportunities in other industries, according to the July report of the Service's marketing agent in that area. Many casual fishermen who only fish during the heavy runs have been eliminated. Present conditions should promote a smaller but steadier supply of fish.

Fishermen were receiving about 4 cents a pound for lake herring, 18 cents a pound for trout and whitefish, and 16 cents a pound for chubs. They are almost certain to have one of their best years if present conditions continue.

One of the heaviest runs of lake herring in a number of years occurred during the fall of 1940. The majority of the North Shore fishermen, however, are concerned because they have not had their usual spring and summer lake herring runs. Lake trout fishing apparently is declining. Whitefish have reappeared and are prevalent more or less over the entire lake in larger quantities. From present indications, 1941 is going to show a much greater increase in the catch than did 1940.

Large quantities of tullibees are being caught in the Minnesota waters of the Lake of the Woods. All catches are examined before shipment by inspectors maintained at each port by the State of Minnesota. Tullibees are being filleted on a large scale and have created quite a demand in eastern cities and are reported to be making inroads on the lake herring market. Another new item—smoked fillet of sucker—has developed a local market in Minnesota which may expand with the scarcity of other varieties.

Fishing in the Minnesota waters of Rainy Lake and Namakan Lake has been poorer. The fishermen missed their early spring run of whitefish and pike because of the mild winter and the early thaw of ice. The run had practically disappeared before the fishermen were prepared to set their nets after the ice left.

PACIFIC HALIBUT SEASON CLOSES SEPTEMBER 14

The International Fisheries Commission announced on August 22 that the North Pacific halibut season in Areas 3 and 4 would be closed to halibut fishing at midnight, September 14, 1941. Permits for the retention and landing of halibut taken incidentally while fishing for other species will not be valid after midnight, October 4.

The 1941 halibut season is the shortest in the history of the fishery. The 1940 season closed on September 26, and the 1939 season on October 28.

COOPERATIVE ORGANIZER AMONG FISHERMEN IN MAINE

Miss Mary E. Arnold now represents the extension department of the Eastern Cooperative League in organizing cooperatives among the Maine fishermen, according to The Cooperator, publication of the Eastern Cooperative Wholesale of New York City. In an item in the June issue it is stated that Miss Arnold is now covering 2,500 miles of coastline and is starting a publication, Maine Cooperatives. She is laying principal stress upon credit unions as a first step in cooperation.

Miss Arnold comes to this work fresh from her successes in cooperative organization among Newfoundland fishermen. In Newfoundland she was employed by the Department of Agriculture and Rural Reconstruction, which conducted the Government's program of cooperative organization and resettlement. Miss Arnold's long experience in cooperative work includes a major part in the organization and management of Consumers' Cooperative Services, a chain of cooperative cafeterias in New York City. Later she was advisor to the cooperative housing development in Tompkinsville, Nova Scotia, which was praised by the Premier for its effect upon the morale and physical betterment of miners.

NEW WHALE AND HERRING OIL FACTORIES ESTABLISHED IN NEWFOUNDLAND

An effort to revive the whale fishery industry is being made at St. John's, Newfoundland, by a sea captain who, in the spring of 1940, purchased and conditioned a plant at Rose au Rue, Placentia Bay, for rendering whale oil on a large scale. At present, 50 men are employed and wages are considered good, according to the Foreign Commerce Weekly. The company purchased a whale catcher last autumn, and operations started this spring on a considerable scale. It is understood that a number of whales have been brought in and rendered.

Two land factories will be erected in Newfoundland this year for the manufacture of herring meal and oil, one on the coast of Labrador and the other at Bay of Islands. Previous efforts in this line were unsuccessful.

PERU BUYS U. S. VESSEL USED IN FISHERIES INVESTIGATIONS

The Peruvian Government has purchased the Pacific Queen, United States vessel chartered for use in a scientific survey of their fisheries by the Fish and Wildlife Service.

So successful was the work of the American three-man mission, detailed by the President in January to assist Peru in conducting the study of its marine fishery resources, that the Government of that country made decision as early as April 29 to purchase the specially outfitted vessel for continuing scientific fisheries work. The deal was consummated on June 28, $50,000 being named as the purchase price for the Pacific Queen, an 80-foot, 105-ton purse-seiner, powered by a 240-HP Diesel motor, and built at Seattle, Wash., in 1939.

Outfitted at San Francisco, the vessel is capable of fishing with almost any gear—purse seine, gill net, otter trawl, harpoon, troll and hand lines. It is equipped with crab and lobster pots and complete gear for tonging and dredging. In addition, specialized marine scientific equipment consists of plankton tow nets, bottom sampling dredges and grabs, Nansen-Knudsen bottles for water sampling, pickling vats, fathometer, meter wheel, and the newest type Herrington current meter.

Cooperation of Fish and Wildlife Service experts was effected at the request of the Peruvian Government. The mission from the United States was headed by R. H. Fiedler, and included N. D. Jarvis and Milton J. Lobell. Fiedler and Jarvis have recently returned from their detail; Lobell will return in September.

The three Service experts conducted a general study to evaluate the present nature, extent, and magnitude of the fisheries and allied industries of Peru. They carried out experiments with newest types of fishing gear; demonstrated and conducted research in the packing of fishery products; and studied fishery marketing procedure, variation in abundance, life habits, history, and migration of fishes along Peru's 1,400-mile coastline.

It is understood that, after a study of the data collected during the survey, recommendations will be made for improvement in operation of the Peruvian fisheries, and an outline submitted indicating the fields in which subsequent investigation, research, and experimentation should be directed.

FISHERIES OF SOUTH AFRICA

Fish are abundant in the waters surrounding South Africa, but the development of the fishing industry has not been very rapid except in the production of crawfish, according to the Commercial Intelligence Journal issued by the Canadian Department of Trade and Commerce.

The total landings of fish, excluding crawfish or other shellfish, in the Union of South Africa in 1940 were 50,463,000 lbs., valued at 425,206 pounds, as compared with 65,611,000 lbs., valued at 553,590 pounds in 1939. Annual landings of crawfish average 10 million lbs., valued at about 150,000 pounds. It is officially estimated that about 31 million lbs. of the catch are taken by line fishing and the remainder mainly by trawlers.

About 350 steam or motor boats and over 750 other boats are ordinarily engaged in the fishing industry off the shores of Cape Province and also Natal. Consequently, some 5,000 to 6,000 fishermen are constantly employed in fishing, and shore establishments employ another 10,000 or more.

In normal times at least 17 steam vessels of 70 to 270 tons are engaged in trawling operations, using otter trawls. They account for about one-half the total landings of fish.

There have been six or seven steam vessels, ranging up to 100 tons, engaged in deep-sea line fishing, particularly off the shores of Natal. Off the west coast schooners up to 70 tons, equipped with auxiliary motors, are generally used in catching snoek, practically all of which is salted.

Inshore fishing is prosecuted by the small individual fisherman using his own small boat, of which less than 10 percent are powered.

Net fishing is limited to three types of nets: the beach seine or "trek" net, the set or drift net, and the Italian trawl net. The beach seine is the principal type of net used by inshore fishermen.

The population of the Union of South Africa is approximately 10,200,000, all of whom are potential consumers. About 7 million are natives whose aggregate purchasing power is fairly good although individually a great number of them can seldom afford fish. Another one million of the population comprises Asiatics and colored or mixed races, all of whom like fish and include it in their menus as far as their means will permit. The white population of about 2,200,000 are all consumers of fish in one form or another, and buying is fairly steady. The consumption of fish in South Africa is insignificant in comparison with that of some European countries and averages only 4½ pounds per capita annually.

The total value of importations of all kinds of fish amounts to well over 2 million dollars annually. Nearly 75 percent of the imports are made up of "other preserved fish" which comprises mainly canned fish such as salmon, sardines, herring, and small quantities of other canned and preserved fish, including some shellfish. Although the Union of South Africa is not an important factor in world production of fish and shellfish, there has been sufficient development to support a fairly good export trade, principally in exports of fresh and frozen crawfish tails and preserved crawfish. Other exports include fresh and frozen fish, cured and dried fish, and preserved (mainly canned) fish. The principal export markets are neighboring African colonies, but Australia is of increasing importance, especially for cured and dried fish.

The cold current from the Antarctic, which sweeps up the west coast of South Africa, probably accounts for the excellent quality of the fish found in that area. The following types of fish are caught in the waters off the shores of the Union:

"Stockfish (Mercucius capensis), or hake, is closely related to the European hake and is known in local trade circles as Cape cod. This fish is landed principally by trawlers but

is also caught by line. It represents about 30 per cent of the value of all fish caught. It is the main smoked fish exported. Small quantities are now being canned.

"Snoek (Thyrsites atun) is peculiar to the southern hemisphere, being found off the shores of South America and Australia as well as South Africa. It is the backbone of the line-fishing industry in South Africa and accounts for about 14 per cent of the value of all fish landed. Much of it is salted, but some has been canned and found comparable to tunny. Snoek is migratory and is caught in greatest quantities off the west coast.

"Flat fish of good flavour are found in large quantities and constitute about 12 per cent of the total value of landings, although only about 4 per cent of the total quantity. These are mainly sole, and the best (Austroglossus pectoralis) is stated to equal the European sole. They are caught mainly in the Agulhas banks. The west coast sole (A. microlepsis) is also of commercial value.

"Kabeljou (Johnius hololepidotus), also known locally as cob or salmon bass, is closely related to the European maigre and the Australian jewfish. This non-migratory fish is caught by line and trawler and accounts for about 7 per cent of the value of all landings.

"Silverfish (Dentex argyrozona), or kaapenar, and the panga (Sparus laniarius) or dix-bekkie are smaller red fish of particular importance to inshore fishermen but caught also by trawl. These two types make up about 7 per cent of the value of all landings and about 12 per cent of the total quantity. On the east coast the seventy-four is known locally as silverfish; the silverfish of the west coast being known as a carpenter (obviously a corruption of kaapener). These fish are well adapted to the process of smoking.

"Kingklip (Genypterus capensis) is a large highly prized fish resembling the European ling. It occurs in the deeper waters off the west coast and is of excellent quality when fresh as well as having qualities which adapt it to refrigeration.

"Harder or mullet (Mugil capito) and the masbanker or horse mackerel (Trachurus trachurus) are procurable in abundance. The former is eaten fresh in fair quantity but finds its best outlet in dried and salted form for consumption among the farming population of the interior where it probably takes the place of the pickled herring it resembles. The common mackerel (Scomber colias) is also abundant but lacks a ready market in the Union, largely as a result of a long-time prejudice.

"Geelbek (Atractoscion acquidens), or Cape salmon, occurs chiefly in the warmer waters around the south and east coasts. It is a surface fish and, therefore, cannot be trawled. The geelbek is a large fish with a superficial resemblance to salmon but no real affinity to the true salmon (salmonidae); the flesh is white.

"Other varieties of fish caught off the coasts of South Africa include: Albacore (Seriola lalandii) or halfkort or yellowtail; the seventy-four (Dentex undulosus), which is very highly prized, especially in Natal; the shad (Pomatomus saltator) or elf, another migratory fish of good food value but despised as "coolie fish"; the hottentot (Spondyliosoma blochii), or hangberger, a small fish taken in large numbers off the west coast; the galjoen (Coracinus capensis); the roman (Sparus laticeps); the white stumpnose (Sparus globiceps); the red stumpnose (Sparus gibbiceps); and various genera of herring.

". . . large quantities of sardines (Sardinops sagax), identical with the species found off Japan and California, school annually off the southeastern shores of South Africa. The anchovy (Engraulis capensis) also occurs in abundance. Neither species has yet been utilized in any quantity for commercial purposes.

"Oysters, formerly abundant, are still obtained in fair supply. With artificial propagation and care, a valuable industry could be developed."

Cape crawfish, kreef or spring lobsters [Jasus (Palinurus) lalandii] are of outstanding importance in the fishing industry of South Africa.

DOMESTIC PRODUCTION OF MARINE-ANIMAL OILS INCREASES

Data collected by the Fish and Wildlife Service and released by the Bureau of the Census shows that the domestic production of marine-animal oils during the second quarter of the current year amounted to 7,901,000 pounds--an increase of about 800,000 pounds as compared with the same period last year. Herring and menhaden oils accounted for 49 and 23 percent of the yield, respectively.

There is listed below information contained in Bureau of the Census reports, dated August 4, 1941, on the production and consumption of marine-animal oils during the second quarter of 1941 and on the factory and warehouse stocks held at the end of the quarter. It will be noted that stocks of cod and cod-liver oil were about one-third less than those on hand June 30 last year.

Production, Consumption, and Stocks of Marine-animal Oils

Oil	Factory operation for the quarter ending June 30		Factory and warehouse stocks, June 30
	Production	Consumption	
1941	Pounds	Pounds	Pounds
Cod and cod-liver oils	210,000	7,417,000	14,412,000
Other fish oils 1/	7,604,000	41,853,000	70,247,000
Whale oils	87,000	5,284,000	39,002,000
Total	7,901,000	54,554,000	123,661,000
1940			
Cod and cod-liver oils	192,000	3,663,000	23,146,000
Other fish oils 1/	6,873,000	36,482,000	86,294,000
Whale oils	35,000	7,239,000	58,986,000
Total	7,100,000	47,384,000	168,426,000

1/ Includes herring oil, 3,861,000 pounds, and menhaden oil, 1,849,000 pounds.
2/ Includes menhaden oil, 5,356,000 pounds; liver oil other than cod and cod-liver, 718,000 pounds; and tuna and mackerel oil, 394,000 pounds.

Note: Statistics on the production of marine-animal oils during the second quarter of 1941 have been revised since original publication of the data.

FUR-SEAL HERD SHOWS INCREASE

The annual computation of fur seals in the Pribilof Islands fur-seal herd as of August 10 showed a total of 2,338,312 animals, an increase of 153,176, or 7 percent, over the number computed in 1940, according to the Service's Alaska Division.

The total was made up of 773,246 cows, a like number of pups, 352,222 yearling and 2-year-old females, 17,486 harem and idle bulls, and 422,112 males of all other classes.

The season's sealing operations by the Service at the Pribilof Islands were discontinued on August 8, when the total take of fur-seal skins numbered 95,013. Of these skins, 79,331 were from St. Paul Island and 15,682 from St. George Island.

Fifteen percent, or 14,252 skins, will be delivered to the Dominion of Canada as its share in accordance with provisions of the International fur-seal treaty, and the remainder will be shipped to the Fouke Fur Co. at St. Louis, Mo., for processing and sale at public auction for the account of the Government.

From the net proceeds the Government of Japan will receive its appropriate share, representing 15 percent of the season's take of seal skins, under terms of the treaty.

FROZEN FISH TRADE

Stocks of Frozen Fishery Products Show Marked Gain

Cold-storage plants in the United States and Alaska held 73,922,000 pounds of frozen fishery products on July 15, an increase of 18,805,000 pounds over the holdings on the same date the previous month, and 19 percent more than was held on July 15, 1940. Items showing marked increases, as compared with a year ago, were cod, haddock, pollock and rosefish fillets, and squid. Four items accounted for 42 percent of the total poundage in storage on July 15. These were halibut, whiting, haddock fillets, and rosefish fillets. Species showing marked declines as compared with a year ago were mackerel and sablefish.

Holdings of Fishery Products in the United States 1/

Item	July 15 1941	July 15 compared with June 15 1941	July 15 compared with July 15 1940	July 15 compared with 5-yr. av. July 15	June 15 1941	July 15 1940	5-yr. av. July 15
	Pounds	Percent	Percent	Percent	Pounds	Pounds	Pounds
Frozen fish and shellfish:							
Total holdings	73,922,000	+ 34	+ 19	+19	55,117,000	62,062,000	62,118,000
Important items:							
Fillets:							
Cod	2,619,000	+ 21	+137	+20	2,157,000	1,104,000	2,183,000
Haddock	6,157,000	+ 33	+ 67	+22	4,637,000	3,693,000	5,047,000
Pollock	573,000	- 19	+ 30	-35	709,000	441,000	879,000
Rosefish	4,610,000	+ 10	+131	(2)	4,173,000	1,997,000	(2)
Halibut	12,591,000	+ 50	+ 6	+25	8,399,000	11,878,000	10,069,000
Sea herring	1,793,000	- 8	- 4	+13	1,944,000	1,874,000	1,586,000
Mackerel	2,591,000	+ 5	- 62	-43	2,459,000	6,784,000	4,569,000
Sablefish	563,000	- 14	- 30	+ 9	652,000	810,000	516,000
Salmon	3,127,000	+ 34	+ 8	+21	2,331,000	2,888,000	2,595,000
Smelts	1,879,000	- 3	+ 7	+42	1,942,000	1,753,000	1,326,000
Whiting	7,470,000	+209	+ 13	- 9	2,416,000	6,600,000	8,230,000
Whitefish	973,000	+ 11	- 23	- 4	873,000	1,256,000	1,011,000
Shrimp	2,743,000	+ 8	- 1	(2)	2,543,000	2,776,000	(2)
Squid	1,272,000	+ 4	+ 29	-37	1,225,000	985,000	2,016,000
Cured fish:							
Herring, cured	20,312,000	- 4	- 18	+ 6	21,076,000	24,678,000	19,217,000
Salmon, mild-cured	4,090,000	+117	- 27	-14	1,887,000	5,615,000	4,736,000

1/ Statistics furnished by the Agricultural Marketing Service, Department of Agriculture.
2/ Data not available.

Whiting Leads in Freezing of Fishery Products

Freezings of whiting were unusually heavy during the month ended July 15. The total of 7,331,000 pounds of this species frozen was the largest for any month since July 1936. Nearly one-fourth of the total volume of fish and shellfish frozen during the month ended July 15 consisted of whiting. Other leading items frozen were haddock and rosefish fillets and halibut. Freezings of all important items except mackerel and salmon were above those for the same period last year.

Freezings of Fishery Products in United States Cold-storage Plants 1/
(Figures are for the month ending on the date indicated)

Item	July 15	July 15 compared with			June 15	July 15	5-yr. av.
		June 15 1941	July 15 1940	5-yr. av. July 15	1941	1940	July 15
	Pounds	Percent	Percent	Percent	Pounds	Pounds	Pounds
Total fish and shellfish	30,715,000	+ 20	+ 23	+35	25,698,000	25,064,000	22,762,000
Important items:							
Croaker	830,000	+ 45	+101	+39	571,000	412,000	595,000
Haddock fillets	3,098,000	+ 9	+ 37	+49	2,837,000	2,268,000	2,083,000
Rosefish fillets	3,018,000	- 14	+ 93	(2)	3,527,000	1,561,000	(2)
Halibut	4,831,000	+ 25	+ 9	+45	3,880,000	4,427,000	3,334,000
Mackerel	649,000	- 64	- 86	-69	1,828,000	4,663,000	2,112,000
Salmon	1,263,000	+128	- 3	+18	555,000	1,306,000	1,072,000
Whiting	7,331,000	+156	+ 52	+23	2,860,000	4,810,000	5,971,000
Shrimp	1,285,000	- 47	+ 90	(2)	2,421,000	675,000	(2)

1/ Statistics furnished by the Agricultural Marketing Service, Department of Agriculture.
2/ Data not available.

Boston Cold-storage Holdings in July Up 13 Percent over June

At the end of July, cold-storage holdings of fishery products in Boston warehouses passed 12 million pounds, 13 percent greater than a month previous but 3 percent under July 1940, according to the Service's Market News office in Boston. The drop from the totals of a year ago is due mainly to mackerel holdings being 2½ million pounds less.

Boston Cold-storage Holdings

Item	July 30, 1941	July 30 compared with		June 25, 1941	July 30, 1941
		June 25, 1941	July 31, 1940		
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	12,065,000	+13	- 3	10,636,000	12,379,000
Leading items:					
Fillets					
Cod	843,000	-35	- 7	1,298,000	911,000
Flounders	498,000	+24	*	403,000	*
Haddock	3,786,000	+11	+ 12	3,401,000	3,376,000
Rosefish	386,000	-27	+113	528,000	181,000
Mackerel	829,000	-29	- 74	1,163,000	3,170,000
Smelt	640,000	-11	+ 23	716,000	520,000
Scallops	326,000	+31	- 22	249,000	417,000
Squid	362,000	- 5	- 3	382,000	372,000

* Data not available.

New York's Cold-storage Holdings 6 Million Pounds at End of July

Six million pounds of frozen fishery products were held in New York City's cold-storage warehouses at the end of July, 18 percent greater than at the end of June and 6 percent more than a year ago, according to the Service's Market News office in that city. Holdings of spiny lobster tails and shrimp were up considerably during the month, while bluefish, sea herring, and smelt revealed the greatest increases when compared with last year.

New York Cold-storage Holdings

Item	July 31, 1941	July 31 compared with June 26, 1941	July 31 compared with July 25, 1940	June 26, 1941	July 25, 1940
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	6,079,000	+ 18	+ 6	5,159,000	5,732,000
Leading items:					
Bluefish	213,000	+ 37	+2663	155,000	8,000
Butterfish	328,000	+ 14	+ 26	288,000	260,000
Herring, sea and sardine	137,000	- 11	+ 270	154,000	37,000
Mackerel	503,000	+ 28	- 38	393,000	813,000
King salmon	256,000	- 14	- 4	299,000	267,000
Smelt	265,000	- 4	+ 102	275,000	131,000
Sturgeon	284,000	+ 2	- 50	278,000	565,000
Whitefish	341,000	+ 21	- 43	282,000	596,000
Lobster tails, spiny	226,000	+270	+ 79	61,000	126,000
Shrimp	182,000	+ 86	- 40	98,000	302,000

Chicago Cold-storage Holdings Unchanged in July

Cold-storage holdings of frozen fishery products in Chicago at the end of July were substantially the same as in June and only 4 percent above the July holdings a year ago, according to the Service's Market News office at Chicago. Decreases in stocks of shrimp and lake herring were particularly marked during the month, counteracting small increases in lake trout, haddock fillets, and halibut, and considerable gains in rosefish fillets and scallops.

Chicago Cold-storage Holdings

Item	July 31, 1941	July 31 compared with June 26, 1941	July 31 compared with July 25, 1940	June 26, 1941	July 25, 1940
	Pounds	Percent	Percent	Pounds	Pounds
Total fish and shellfish	3,599,000	0	+ 4	3,580,000	3,451,000
Leading items:					
Lake herring	77,000	- 63	- 59	207,000	188,000
Lake trout	130,000	+ 15	- 2	113,000	133,000
Smelt	324,000	+ 1	+ 13	320,000	286,000
Whitefish	274,000	+ 3	- 23	265,000	355,000
Haddock fillets	164,000	+ 9	+235	150,000	49,000
Rosefish fillets	225,000	+181	+369	80,000	48,000
Halibut	341,000	+ 13	+ 34	302,000	255,000
Scallops	77,000	+114	- 43	36,000	134,000
Shrimp	362,000	- 21	- 3	455,000	372,000

Canadian Freezers Hold 33 1/3 Million Pounds on August 1

Cold-storage plants in Canada held 33,387,000 pounds of fishery products on August 1, according to preliminary statistics released by the Dominion Bureau of Statistics. This included 29,860,000 pounds of fresh fish items and 3,527,000 pounds of frozen smoked fish. The holdings of fresh frozen stocks were 33 percent larger than on July 1, 1941, and 8 percent larger than those of August 1, 1940. The fresh fish stocks included mainly sea herring, halibut, salmon, cod fillets, mackerel, and whitefish, while the most important smoked items

were groundfish fillets, sea herring kippers, and finnan haddie. Major increases in holdings during July occurred in fresh sea herring, whitefish and salmon, while a decrease was recorded in the supply of halibut and haddock fillets.

Stocks frozen during July included 12,470,000 pounds of fresh items, and 980,000 pounds of smoked fish. Among the main items frozen were sea herring, 3,128,000 pounds; cod fillets, 2,655,000 pounds; halibut, 2,063,000 pounds; salmon, 1,350,000 pounds; and smoked sea herring kippers, 570,000 pounds. Total freezing activity was 16 percent larger than that of June, but 19 percent less than that of July 1940. Major decreases from June occurred in the freezing of fresh mackerel, halibut, and smoked groundfish fillets. Freezing of fresh sea herring increased 2,740,000 pounds, or 706 percent, in July.

CANNED FISH TRADE

Domestic Pack of Canned Fishery Products and Byproducts Worth 124 Million Dollars

The production of canned fishery products and byproducts in the United States and Alaska during 1940 was valued at $124,587,000, according to data released by the Fish and Wildlife Service in Statistical Bulletin 1433. Canned products accounted for $94,114,000 of the total, and byproducts, $30,473,000. The value of the production of canned fishery products decreased 3 percent as compared with 1939, while the value of the output of byproducts declined 10 percent.

Fishery products were canned at 383 establishments in the United States and Alaska during 1940. The combined output of these canneries amounted to 18,580,000 standard cases, and the net weight of the products canned aggregated 693,176,000 pounds. Canned fishery products or byproducts were manufactured in 26 States and in Alaska during the year.

California ranked first in the value of these products, accounting for $48,200,000 or 39 percent of the total. The pack of canned tuna, valued at $22,337,000, and sardines, valued at $8,975,000, were the leading items canned in this State. Alaska was the second most important area, yielding canned fishery products and byproducts valued at $32,793,000. Oregon with $5,490,000, Maine with $5,361,000, and Washington with $4,867,000, followed in importance. Considering the output by geographical sections, the Pacific Coast States and Alaska accounted for 73 percent of the total value of canned fishery products and byproducts.

Salmon was the most important product canned, the pack of this fish amounting to 5,605,000 standard cases (269,040,000 pounds), valued at $38,050,000. The packs of other important canned fishery products were as follows: Tuna and tunalike fishes, 4,187,000 cases (100,481,000 pounds), valued at $23,714,000; California sardines, 2,946,000 cases (141,402,000 pounds), valued at $8,975,000; shrimp, 990,000 cases (16,744,000 pounds), valued at $4,318,000; mackerel, 1,419,000 cases (68,110,000 pounds), valued at $4,088,000; clam products, 927,628 cases (24,257,000 pounds), valued at $3,778,000; and Maine sardines, 1,118,000 cases (27,944,000 pounds), valued at $3,736,000.

Marine-animal oils valued at $12,018,000 ranked first in value among the commodities classified as byproducts. The value of the output of the other more important byproducts or groups of byproducts was as follows: Meal, scrap, etc., $7,809,000; marine pearl-shell products, $5,369,000; and fresh-water mussel-shell products, $2,489,000.

Pacific Mild-cured Salmon Pack Nears 10,000 Tierces

The pack of mild-cured salmon on the Pacific Coast at the end of July amounted to 9,937 tierces of 825 pounds each as compared with 5,869 tierces in 1940 and 10,452 tierces in 1939, according to reports and estimates furnished by the trade to the Seattle Fishery Market News office. Alaska's pack of 6,793 tierces is over double the previous year's total. Packs in other areas were as follows: Seattle, 2,002 tierces; British Columbia, 878 tierces; Oregon, 165 tierces; and California, 99 tierces.

Puget Sound Salmon Pack Above Previous Cycle Years

On August 9 the pack of all species of salmon on Puget Sound was reported as 134,549 standard cases by the Department of Fisheries of Washington considerably greater than the previous cycle years of 1939 and 1937 when the packs on comparable dates were 26,064 cases and 76,501 cases, respectively. Almost one hundred thousand cases of the current pack is made up of sockeye or red salmon with the balance about equally divided between pink and silver salmon.

Alaska Salmon Pack 4½ Million Cases on August 9

On August 9 the Alaska salmon pack in all districts reached a total of 4,473,065 standard cases as compared with 3,584,790 cases in 1940 and 4,806,353 cases for the 5-year average, according to Service reports.

The final figures for the season in Western Alaska were disappointing, amounting to 665,000 cases, over 90 percent of which were red salmon. Central Alaska's pack, with final figures from several districts, amounted to 1,655,000 cases. About 900,000 cases were pink salmon, 360,000 cases red salmon, and 304,000 cases chum salmon. Southeastern Alaska's pack was far ahead of recent years. Of the total of 2,153,000 cases, pink salmon made up 1,778,000 cases, about two to over four times the size of pink packs since 1937.

Government agencies are requesting 45 percent of the Alaska red salmon pack—about 500,000 cases; all of the coho or silver pack; 100,000 cases of the chum pack; and enough of the pink pack—probably about 400,000 cases—to bring the total to 1,200,000 cases.

In the absence of opening prices, the Seattle Fishery Market News office reported the following quotations, f.o.b. Pacific Coast shipping points.

Canned Salmon Quotations — Per Dozen Cans

Variety	Can size	August 1, 1941	August 1, 1940
Alaska red	1 lb. tall	$3.10 - $3.25	$2.35
Chinook or king, Columbia River	1 lb. fancy flat	4.25	3.70
Coho or silver	1 lb. tall	2.75	1.90 - 2.00
Chum	1 lb. tall	1.70 - 1.75	1.35 - 1.40
Pink	1 lb. tall	1.75 - 1.85	1.45 - 1.50
Sockeye, Puget Sound	1 lb. flat	4.25	3.50

New Season Shrimp Pack Negligible to August 9

During the first six weeks of the season from July 1 to August 9 only three shrimp canneries operated under the Seafood Inspection Service of the U. S. Food and Drug Administration. The pack totaled 915 standard cases, according to the New Orleans Fishery Market News office. With the opening of the fall shrimp season in Louisiana at midnight August 10, the production of shrimp will be increased materially, and it is expected that the canned pack will rise rapidly.

Supplies of canned shrimp were very low on August 1, with the majority of the packers not quoting prices.

Canned Shrimp Prices — Per Dozen Tins

Item	Wet Pack		Dry Pack	
	August 1, 1941	August 1, 1940	August 1, 1941	August 1, 1940
Small	$1.40 - $1.50	$1.05 - $1.15	$1.40 - $1.50	$1.05 - $1.15
Medium	1.50 - 1.60	1.10 - 1.20	1.45 - 1.60	1.15 - 1.20
Large	1.70 - 1.85	1.15 - 1.25	1.50 - 1.85	1.15 - 1.25
Extra large or jumbo	1.80 - 1.85	1.20 - 1.30	1.55 - 1.85 few 2.00	1.20 - 1.30

California Tuna Pack Declines 40 Percent

The California pack of canned tuna during the first six months of the current year totaled 925,000 standard cases of 24-pounds each, according to data released by the California Division of Fish and Game. This is 40 percent less than was packed in the same period last year. The June pack of 214,000 cases was 5,000 cases below the quantity canned the previous month.

The production of canned tuna during the first half of the year consisted of the following species: Albacore, 6,000 cases; bonito, 9,000 cases; bluefin, 73,000 cases; striped tuna, 127,000 cases; yellowfin, 597,000 cases; yellowtail, 9,000 cases; tuna flakes, 88,000 cases; and tuna, tonno style, 16,000 cases. The pack of yellowfin tuna during the first half of 1941 was 35,000 cases less than the amount canned in the same period last year. Bluefin tuna showed a decline of 128,000 cases; striped tuna, 71,000 cases; and the tuna, tonno style, 68,000 cases.

No mackerel or sardines were canned in California during June.

British Columbia Salmon Pack Ahead of 1940

British Columbia's 1941 salmon pack numbered 640,038 standard cases on August 9, according to the report of the Chief Supervisor of Fisheries, as compared with 527,383 cases on August 10 last year. The gain is due mainly to increased packs of sockeye and silver salmon. The current pack consisted of red or sockeye salmon, 386,814 cases; silver or coho salmon, 113,260 cases; pink salmon, 101,413 cases; chum salmon, 24,477 cases; and chinook or king salmon, 14,074 cases.

FOREIGN FISHERY TRADE

June Exports of Canned Sardines Above Normal

Exports of canned sardines from the United States during June accounted for 65 percent of the total volume of edible fishery products shipped to foreign countries during the month. Although exports of canned sardines during both May and June have been considerably greater than those in the same month last year, total shipments of this item to foreign countries during the first six months of the year were 29 percent less than those during the same period in 1940. Exports of canned salmon likewise showed a decline of 36 percent during the first half of 1941.

United States Exports of Edible Fishery Products 1/

Item	June 1941	June 1940	Six months ending with June 1941	Six months ending with June 1940
	Pounds	Pounds	Pounds	Pounds
Salmon, canned	218,000	4,333,000	13,627,000	21,277,000
Sardines, canned	6,739,000	1,970,000	29,759,000	41,800,000
Shrimp, canned	30,000	161,000	449,000	1,215,000
Other products	3,313,000	874,000	12,483,000	7,317,000
Total	10,300,000	7,338,000	56,318,000	71,609,000

1/ Data furnished by Bureau of Foreign and Domestic Commerce.

Sea Herring Imports Show Large Gain

In June, as in the previous two months, sea herring led all other items in imports of edible fishery products into the United States. Receipts of this species accounted for

41 percent of the total poundage imported during the month. Other leading items received during June were fresh or frozen lobsters, which accounted for 12 percent of the total; and fresh or frozen fresh-water fish, 10 percent.

Total imports of fresh or frozen sea herring during the first half of 1941 were over seven times as large as those in the same period last year. These fish are used principally in the canning of sardines in the State of Maine. Receipts of canned crab meat during the first six months of the current year were 68 percent less than the amount received during the same period in 1940. This item is received principally from Japan.

Imports of Edible Fishery Products into the United States

Item	June 1941	June 1940	Six months ending with June 1941	Six months ending with June 1940
Fresh or frozen:	Pounds	Pounds	Pounds	Pounds
Fresh-water fish	2,763,000	2,576,000	27,529,000	27,298,000
Halibut	615,000	673,000	3,360,000	3,118,000
Salmon	1,791,000	1,087,000	4,242,000	2,384,000
Sea herring	11,418,000	1,973,000	28,272,000	3,909,000
Swordfish and sturgeon	35,000	133,000	254,000	838,000
Tuna	148,000	1,299,000	1,026,000	3,385,000
Fish filleted, skinned, boned, etc.	1,022,000	1,674,000	5,684,000	8,625,000
Smelts	5,000	1,000	4,440,000	4,098,000
Lobsters	3,368,000	3,468,000	12,016,000	11,571,000
Pickled or salted:				
Cod, haddock, hake, etc.	937,000	1,803,000	14,837,000	20,369,000
Herring	296,000	298,000	13,331,000	7,247,000
Canned:				
Crab meat	1,446,000	630,000	3,132,000	9,742,000
Lobsters	410,000	147,000	964,000	621,000
Sardines	538,000	857,000	4,456,000	7,404,000
Tuna	297,000	294,000	1,728,000	4,392,000
Other, fresh, frozen, salted, canned, etc.	2,877,000	3,184,000	21,395,000	37,925,000
Total	27,966,000	20,097,000	146,666,000	152,926,000

British Columbia Regulates Exports and Freezing of Salmon

The Chief Supervisor of Fisheries made the following announcement on August 13:

"'In connection with export permits for salmon, the following is the arrangement which will go into effect after the 15th instant:

"'FRESH AND FROZEN SALMON: In view of the uncertainty of securing sufficient Grade III salmon for British requirements, it has been decided to prohibit the freezing of pink and chum salmon during the month of September.

"'No export permits will be granted for the exportation of fresh or frozen coho, chum, steelhead trout, sockeye and pinks as from August 15.

"'Export permits will be granted for the exportation of troll-caught springs, fresh or frozen.

"'MILD CURE: Export permits will be granted for the exportation of mild cured spring salmon.'"

THE COVER PAGE

The annual catch of shrimp exceeds that of any other shellfish taken in the United States. In 1939 the total domestic catch amounted to 150,250,000 pounds, valued at $4,913,000. The State of Louisiana, with a catch of 100,612,000 pounds, accounted for 67 percent of this total. Other leading States were Texas, with a catch of 11,200,000 pounds; Georgia, 10,801,000 pounds; and Florida, 8,800,000 pounds. About half of the total catch is used in the production of canned shrimp. The remainder is sold fresh, frozen, cooked and peeled, and sun-dried. During recent years increasing quantities have been marketed frozen. In 1940 nearly 16,000,000 pounds of shrimp were frozen by domestic freezers. Only four fishery products were frozen in greater volume during that year. These were haddock and rosefish fillets, halibut, and whiting.

The cover page for this month shows the catch of a shrimp trawler being shoveled below deck for icing, while the vessel continues fishing. Prior to the introduction of the otter trawl in the shrimp fishery, nearly 30 years ago, almost the entire catch was taken by haul seines. At the present time less than one percent of the production is taken by this gear, while shrimp trawls account for nearly 99 percent of the catch.

FISHERY TRADE INDICATORS
(Expressed in Thousands of Pounds)

Item	Month	Latest month	Same month a year ago	Previous month
FRESH FISH LANDINGS				
Boston, Mass.	June	29,948	17,001	29,231
Gloucester, Mass.	do	15,250	11,836	16,204
Portland, Maine	do	3,264	1,785	3,717
Boston, Gloucester, and Portland:				
Cod	do	8,757	2,951	9,179
Haddock	do	15,477	8,999	14,648
Pollock	do	1,202	1,062	1,116
Rosefish	do	14,344	9,900	17,309
Pacific Coast:				
Halibut, North Pacific ports	do	11,312	11,019	10,362
Halibut, Seattle	do	2,881	3,038	3,575
FISH RECEIPTS, CHICAGO 1/				
Salt-water fish	do	1,753	1,298	1,444
Fresh-water fish	do	2,193	2,340	2,449
Shellfish, etc.	do	961	1,044	912
By truck	do	2,112	1,371	2,125
By express	do	1,766	2,055	1,751
By freight	do	1,029	1,255	929
COLD-STORAGE HOLDINGS 2/				
New York, N. Y.:				
Salt-water fish	July	3,980	3,090	3,513
Fresh-water fish	do	1,176	1,595	1,038
Shellfish, etc.	do	922	1,047	608
Boston, Mass.:				
Salt-water fish	do	11,254	11,402	9,947
Fresh-water fish	do	34	17	16
Shellfish, etc.	do	777	960	673
Chicago, Ill.:				
Salt-water fish	do	1,303	901	1,136
Fresh-water fish	do	1,476	1,533	1,576
Shellfish, etc.	do	614	571	664
Unclassified	do	206	446	203
United States:				
Cod fillets	do	2,619	1,104	2,157
Haddock fillets	do	6,157	3,693	4,637
Halibut	do	12,591	11,878	8,399
Mackerel	do	2,591	6,784	2,459
Pollock fillets	do	573	441	709
Rosefish fillets	do	4,610	1,997	4,173
Salmon	do	3,127	2,888	2,331
Whiting	do	7,470	6,600	2,416
Shrimp	do	2,743	2,776	2,543
New England, all species	do	20,469	19,668	15,075
Middle Atlantic, all species	do	14,130	10,609	10,540
South Atlantic, all species	do	6,114	2,864	4,053
North Central East, all species	do	9,295	8,550	8,000
North Central West, all species	do	2,937	1,804	1,872
South Central, all species	do	2,539	1,352	2,282
Pacific, all species	do	18,439	17,215	12,725
FOREIGN FISHERY TRADE 3/				
Exports:				
All edible fishery commodities	June	10,300	7,338	8,172
Canned salmon	do	218	4,333	341
Canned sardines	do	6,739	1,970	4,903
Canned shrimp	do	30	161	43
Imports:				
All edible fishery commodities	do	27,966	20,097	21,844
Fresh-water fish and eels, fresh or frozen	do	2,763	2,576	2,344
Canned tuna	do	297	294	440
Canned sardines	do	538	857	579
Cod, haddock, hake, etc., pickled or salted	do	937	1,803	1,598
Herring, pickled or salted	do	296	298	1,075
Crab meat, sauce, etc.	do	1,446	630	557
Lobsters, not canned	do	3,368	3,468	3,533
Lobsters, canned	do	410	147	114

1/ Includes all arrivals as reported by express and rail terminals, and truck receipts as reported by wholesale dealers including smokers.

2/ Data for individual cities are as of the last Thursday of the month, except those at Boston which are for the last Wednesday of the month, and those for geographical areas and the total of the United States which are as of the 15th of the month.

3/ From data compiled by the Bureau of Foreign and Domestic Commerce.

Note.--Data for the latest month are subject to revision.

PRINCIPAL FISHERY FIELD OFFICES AND LABORATORIES OF THE FISH AND WILDLIFE SERVICE

Division of Fishery Industries

Boston, Mass.	B. E. Lindgren.....	253½ Northern Ave. Market News Service.....
Chicago, Ill.	E. C. Hinsdale.....	200 N. Jefferson St. Market News Service.....
College Park, Md.	J. M. Lemon.....	Fisheries Tech. Laboratory..
Jacksonville, Fla.	S. C. Denham.....	309 Duval Bldg. Market News Service.....
Ketchikan, Alaska.....	M. E. Stansby.....	Fisheries Tech. Laboratory..
Mayaguez, P. R.	J. F. Puncochar.....	Fisheries Tech. Laboratory..
New Orleans, La.	C. E. Peterson.....	1100 Decatur St. Market News Service.....
New York, N. Y.	W. H. Dumont.....	33-A Fulton St. Market News Service.....
San Pedro, Calif.	C. B. Tendick.....	Post Office Bldg. Fishery Statistics.....
Seattle, Wash.	V. J. Samson.....	417 Bell St. Terminal. Market News Service.....
Seattle, Wash.	R. W. Harrison.....	2725 Montlake Blvd. Fisheries Tech. Laboratory.....

Division of Fish Culture

Regional Headquarters

Albuquerque, N. Mex.	Theodore S. Kibbe.....	220 West Copper Ave. Reg.#2.
Atlanta, Ga.	John Blosz.....	316 Glenn Bldg. Reg. #4...
Boston, Mass.	Henry C. Markus.....	1140 Pk. Square Bldg. Reg. #5.
Minneapolis, Minn.	C. F. Culler.....	500 National Bldg. Reg. #3..
Portland, Oreg.	Alphonse Kemmerich.....	600 Weatherly Bldg. Reg. #1..

Division of Fishery Biology

Ann Arbor, Mich.	Dr. John Van Oosten.....	University Museums. Great Lakes Fish. Investigations
Beaufort, N. C.	Dr. Herbert F. Prytherch....	Fisheries Biological Laboratory.....
Cambridge, Mass.	W. C. Herrington.....	Room A-210 Harvard Biol. Lab. N.At.Fish. Investigations.
College Park, Md.	Robert A. Nesbit.....	Fish. Tech. Laboratory. Mid. & S. Atlantic Fish. Invest.
Columbia, Mo.	Dr. M. M. Ellis.....	101 Willis Ave. Interior Waters Investigations.....
Milford, Conn.	Dr. Victor Loosanoff.....	Fish. Laboratory. New England Oyster Investigations.
New Orleans, La.	M. J. Lindner.....	302 Custom House Bldg. 423 Canal St. Gulf Shrimp Inv.
Pensacola, Fla.	Dr. A. E. Hopkins.....	Box 1826. Gulf Oyster Investigations.....
Seattle, Wash.	Dr. F. A. Davidson.....	2725 Montlake Blvd. Fisheries Biological Laboratory.
Stanford University, Calif..	O. E. Sette.....	Room 450-B Jordan Hall. Pilchard Investigations.....

Division of Alaska Fisheries

Cordova, Alaska.....	Daniel W. Bates.....	Alaska Fisheries Service....
Juneau, Alaska.....	Clarence L. Olson.....	Federal Bldg., Alaska Fisheries Service.....
	J. Steele Culbertson	
Ketchikan, Alaska.....	Bertel W. Johnson.....	Alaska Fisheries Service....
Seattle, Wash.	(Miss) Ted Murphy.....	706 Federal Bldg. Alaska Fisheries Service.....

STUDIES ON THE HANDLING OF FRESH MACKEREL

Research Report No. 1

THE MACKEREL (Scomber scombrus Linnaeus) is one of the most important food fishes of the United States. In 1935 the mackerel fishery ranked eighth in volume and seventh in value among the food fisheries of this country. Owing to prevailing methods of handling and shipment, however, considerable difficulty has been experienced in disposing of the entire catch at a profit. Studies of this fishery were conducted as a basis for recommendations leading to increased distribution and popularity of mackerel, and improved handling methods are discussed in this report.

The fat content of mackerel varies with the season, from a minimum of approximately 2 percent in spring to a maximum of 20 percent or more late in summer and in fall. This variation is important in determining the food value of fish, since fat fish contain a considerably higher calorific food value.

Spoilage is much more complicated in mackerel than in many other species, owing to the usual high fat content. Mackerel can be kept in good condition much longer, however, if eviscerated and packed in finely crushed ice, rather than floated in the round in sea water that contains but little ice. For example, floated mackerel keep in good condition for only about 4 days, while those eviscerated and packed in crushed ice remain in edible condition for 7 to 10 days.

Marketing of the catch necessarily involves transportation, the cost of which is based upon gross weight. By shipping mackerel in crushed ice, rather than floating them in barrels, the net cost of transportation is greatly reduced.

The complete report may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 10 cents.

A CRISIS IN THE HADDOCK FISHERY

CIRCULAR 4

The recent development of a market for baby haddock has resulted in a catch of 3,000,000 pounds from the Georges Bank-South Channel fishing grounds during January-February 1941; average size 1 pound, age 2 years. Continuation and growth of this fishery will cause a 40 to 50 percent decline in the yield from this area within the next few years. The decline will result from taking the fish before they have completed their period of rapid growth, and from reducing the spawning stock. Supporting data are presented that show that except for the very high levels of abundance, which have not prevailed since 1928, the average production of young haddock is proportional to the abundance of spawners; and that at present the abundance of spawners is but half that of the most productive level. The baby haddock now being taken would double in weight if left on the banks another year. By application of adequate management practices, which would protect small haddock during their years of rapid growth and thus double the present spawning stock, the threatened decline can be prevented. Furthermore, the annual yield can be increased from the recent 100,000,000-pound average to at least 150,000,000 pounds. Several practical measures are proposed.

"A Crisis in the Haddock Fishery", Fish and Wildlife Service Circular 4, may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 5 cents.